

FIRST CLASS MAIL



A Publication of
THE PHIL-MONT MOBILE RADIO CLUB, INC.
2113 EDGEHILL DRIVE, FURLONG, PA 18925

THE BLURB

PHILMONT MOBILE RADIO CLUB
W3RQZ-W3TKQ-W3QV



BLURB

February 1991



IS HAM RADIO HEADING
FOR THE BLOCK?

is published monthly by, and for, the members of **The PHIL-MONT MOBILE RADIO CLUB, INC.** whose purpose is to promote Amateur Radio in general, and Mobile Radio in particular. Copying and quoting is permitted with a credit line. We gladly exchange publications with other amateur radio clubs; requests should be sent to the Editor. BLURB subscriptions are available to non-members for \$10.00 addressed to the Treasurer. The club meets at **7:30 PM on the first non-holiday WEDNESDAY** of every month at The Franklin Institute, 20th Street and the Benjamin Franklin Parkway, Philadelphia. Use the Winter Street (north side) entrance.

ALL VISITORS ARE WELCOME!

Amateur Radio License Examinations - the first non-holiday THURSDAY of every month at The Franklin Institute - doors close at 6:30 PM-SHARP!

CLUB INFORMATION

- 24 Hour Information Number at W3TKQ -(215) 448-1139

Repeater frequencies: 147.03 & 444.80 MHz - Simplex frequency: 147.51 MHz

Mailing Address: P.O. Box 88, Abington, PA 19001

STATIONS

W3QV - 147.03 MHz. Repeater - 8200 Ridge Avenue, Philadelphia, PA - Trustee W3BBB

W3RQZ - 1176 Old York Road, Abington, PA - Trustee W3VVS

W3TKQ - The Franklin Institute, Philadelphia, PA - Trustee W3PWG

ALL LICENSED AMATEURS ARE WELCOME TO OPERATE W3TKQ.

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VICE PRESIDENT: N3GLH, Brad Swanson, 517 Cresheim Valley Road, Wyndmoor, PA 19118 (215) 836-2473

SECRETARY: N2RM, Rob Moore, 9U Rose Rita Terrace, Hammonton, NJ 08037 (609) 561-4459

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BLURB: W3IIM
Budget /Audit: W3IIN
Directory: WB3KOJ
DX: WA3AUN
Emerg. Coord.: W3BBB

Membership: W3IIN
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Publicity: -----
Refreshments: N3FVI

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TVI: WA3AUN
VE Program: ND3Q
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Welcome: W3VVS

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N3DHI, K3GBA, WB3KOJ

DEADLINE: To be assured of publication in the current month, all copy **MUST** be in the hands of the Editor at the Bored of Directors' Meeting!

NET SCHEDULE

SUNDAY	09:30	147.030	MHz FM	"SUNDAY MORNING 2 METER NET"
	10:00	28.993	MHz SSB	"10-ON-10 NET"
	10:20	3.993	MHz SSB	75 METER NET
TUESDAY	20:00	147.030	MHz FM	CW PRACTICE NET



APPLE BYTES

Don Gordon, WB3KOJ

FEBRUARY BIRTHDAYS

- 04 Eunice Bohlander (XYL W3VVS)
- 05 Michael L. Concordia - WB3KAC
Stuart Blake Tener - N3GWG
- 07 Lou Andrews (XYL W3IRS)
- 10 Sharon Masarsky - N3GLU
- 11 Jerry Russell - K3JR
- 14 Kay Russell (XYL K3JR)
- 16 Virginia Ziegler (XYL WB2SZF)
- 17 Samuel C. Smith - K3GBA
- 18 Lester W. Burket - W3HQJ
Mim Roeshman (XYL W3LKI)
- 23 Louise Newell (XYL K3JJO)
- 24 William A. Biermann - N3DSM
- 28 Roger N. Cox - K3TYB

HELP PHIL-MONT

Are you planning to join **ARRL** or renew your current membership? Help Phil-Mont by joining or renewing through the club. Contact **KB3IV** for the details.

DIRECTORY UPDATE

LAST CALL... if you have any changes for the 1991 PMRC Directory, or want to make any changes in your information (Birthdays etc.), let me know **NOW!**
'91 Directories will be mailed with the **April BLURB**.

REPEATINGS

Everybody mark your calendars: The **Flourtown** wedding of the year—August 10!... Ask **Jake** to show you his grandbaby pictures... Packet BBS at **W3TKQ** is operational; more info next month... Congratulations to the **Reading Radio Club**—celebrating its 60th anniversary.... Last BLURB issue, for non-paying members, is the March issue! — **Pay your dues NOW** so you don't miss any!

Federal Communications Commission
1919 M Street, N.W.
Washington D.C. 20554

FCC ISSUES \$147,000 IN FINES TO 144 UNLICENSED SHORTWAVE RADIO STATION OPERATORS

On December 13 and 14, 1990, the Federal Communications Commission conducted a nationwide effort to identify unlicensed radio operations on shortwave frequencies. One hundred forty-four radio operators were identified illegally transmitting on frequencies adjacent to the Citizens Band and 10 meter Amateur Band. The 25 MHz to 28 MHz frequencies are allocated for business and U.S. Government use.

The two day effort involved personnel from all 35 Commission field offices. Operators of the 144 stations are being issued fines which total \$147,000.

These unlicensed transmissions were identified as originating from all 50 states plus the District of Columbia and Puerto Rico. However, the most active states were Florida, California, Michigan, Texas and Arizona. The equipment typically used was modified Citizens Band or amateur transceivers with linear power amplifiers.

Operators included members of organized groups such as World Wide Sideband, Satellite, Alfa Tango, Whiskey Jack, Unidad, Truckers, Eagles International and Old Timers.

Unlicensed operation of a radio transmitter is a violation of Section 301 of the communications Act of 1934, as amended. Sanctions may include administrative fines of up to \$10,000 and/or criminal penalties of up to \$100,000 and/or imprisonment for up to one year.

The ARRL BBS



The PREZ SEZ

Bill Popovic, N3FVI

No negative waves please. The news media has plenty of bad news and controversy to report. The last thing anyone wants to hear when they turn off their tv, or put down the paper, is more negative comments on the airwaves. There are plenty of positive things going on in the club and in amateur radio to talk about. If you do have a problem with someone or something call them or me on the phone and leave the negative broadcasting to the news media.

Amateur radio has provided us with countless hours of enjoyment. Although it is not required, I feel it is our obligation to pay for the billions of dollars worth of radio spec-

trum allocated to amateurs. Many donate time by passing MARS traffic, participating in special events, (Paddlerama, MS bikeathon, Cancer Society run, etc.), or VE testing. Some donate labor keeping the repeater operational, renovating W3TKQ, and publishing the BLURB. A few donate money to ARRL, W3TKQ, or other worthy causes.

Whatever you can afford — time, labor, or money — is appreciated. Phil-mont Mobile Radio Club is full of volunteers giving years of service in too many activities to acknowledge here.

If you aren't one of the givers, try it you'll like it.

EXTRA!!! The BLURB EXTRA!!!

W3TKQ FUND AT \$1,500.00, AND STILL CLIMBING!

Article on page 7.



* UPDATE *

- Feb 6 **General Meeting Speaker:**
Bob Brown, KW3F
(see page 3)
- Feb 7 License Examinations
Feb 13 Directors' Meeting at
KA3AMO & N3FTC's
-
- Mar 6 **General Meeting Speaker:**
The World's Greatest Restorer
of National Radios
H. Paul Bohlander, W3VVS
- Mar 7 License Examinations
Mar 20 Directors' Meeting at
KB3IV's
-
- Apr 3 **General Meeting**
Apr 4 License Examinations
Apr 17 Directors' Meeting at
W3GQD's

CLUB INFORMATION

24 Hour Information Number at W3TKQ
(215) 448-1139

V.E. TEST LOCATIONS

Confirm all information, in advance, with the contact person. Licensed applicants must bring their original license and one photocopy of it. All applicants, including children, must present positive ID. Also bring the original of any Certificate of Successful Completion needed to prove current status. The ARRL VEC's 1991 test fee is \$5.25; there is no charge for a Novice test.

BELLMAWR, NJ
Monthly, 3rd Thursday
Bill Helmatag
(609) 546-7710

BRYN MAWR
Saturday, Feb. 9
Bob Haase, W3SA
(215) 293-1919

CENTER CITY PHILA.
Monthly, 1st Thursday
Dusty Rhoads, ND3Q
(215) 482-0386
(215) 879-0505

LEVITTOWN
Dave Munson, NM3K
(215) 788-7515

PERKASIE
Monthly, 3rd Monday
Warren Erdman K3ZXQ
(215) 679-5764

WARMINSTER
Last Wed., Odd Months
Tom Michaud, WA3TQJ
(215) 343-3494

HAMFESTS

- Mar 2 ABSECON, NJ
(Sat) Shore Points ARC
- Mar 3 DOVER, PA
York Springfest
- Mar 16 FLEMINGTON, NJ
(Sat) Cherryville RA
- Mar 24 TRENTON, NJ
DVRA
-
- Apr 6-7 TIMONIUM, MD
Baltimore ARC
- Apr 14 WILMINGTON, DE
Delmarva Hamfest Assn.
- Apr 26-28 DAYTON
HAMVENTION
-
- May 19 WRIGHTSTOWN, PA
Warminster ARC

Two of the more fascinating transmissions in recent weeks, said Brown, have come out of Iraq: the Voice of Peace, whose "Baghdad Betty" is trying to torpedo the morale of American soldiers, and the Voice of Free Iraq, a clandestine anti-Hussein station. Brown has picked up both.

According to Boston Globe reporter Colin Nickerson, writing from Saudi Arabia, the American troops are amused by Betty. "Oh, American soldiers, invaders of Arab lands," she warned poetically in an autumn broadcast, "even now your wives are weeping because soon they shall become widows. When our dear leader's merciful patience has ended, and his sincere yearning for peace becomes righteous fury, then, Oh Americans, the sands of Arabia shall become your unmarked graves."

"Most of us, if we have a choice between Armed Forces and Baghdad, would choose Betty any night," a soldier told Nickerson. "The [Armed Forces Network] music is better, but Baghdad Betty is funnier - and we can all use a laugh out here."

Several days before the war began, this transmission from the Voice of Free Iraq was monitored by the CIA, which made a transcript available:

"If [Hussein] withdraws from Kuwait, the sword of siege is placed on his neck. If he stays in Kuwait, the weapons of destruction are also a sword over his head. He does not take into account the torment of the Iraqis, nor does he reckon with the homelessness of the Kuwaitis, nor does he take into consideration the world's concern over their destiny or peace. The only thing he gambles on protecting is his empty head."

Among the programs of interest now, said Brown, are: Radio Baghdad, which begins at 4 p.m. Philadelphia time on 13660 kilohertz; Iraq's Voice of Peace, from about 4 to 6 p.m., 11860 kHz; Kol Israel, from about 7 til 9:30 p.m., 11605 kHz, 9435 kHz and 7465 kHz; and Radio Damascus, from about 3 to 5 p.m., 12085 and 9950 kHz. *The Philadelphia Inquirer—January 18, 1991*
Editor's note: Bob will be our guest speaker at our February 6th general meeting.



ON THE RADIO, THE WAVES OF WARFARE

Shortwave enthusiasts get earful of gulf crisis

By Joe Logan
Inquirer Staff Writer

Bob Brown [KW3F] first realized something was happening just after 6 p.m. Wednesday, about 30 minutes before the rest of the country knew that the United States was at war with Iraq.

Radio Baghdad's English-language broadcast had just ended, and Brown, whose shortwave and ham radio equipment is crammed into a special nook of his Lansdale home, was tuned to a U.S. military transmission, point of origin unknown.

"There was an increase in the cryptic number transmissions, these coded five-digit letter-and-number groups [the military] sometimes uses," he said yesterday. "... They were directing military airlift command flights away from the affected region. They didn't want them to go into the 'AOR,' whatever that means.

"They were asking them if they had enough fuel to go to Rota, Spain. Something was clearly up. The next thing I knew, my wife came upstairs and said CNN was reporting there was firebombing in Baghdad."

These are exciting times for shortwave hobbyists, who sit long into the night in search of faint signals from far-flung countries.

While most of us turn to television for breaking news from the front, they are hearing reactions and often conflicting pronouncements about the two-day-old war in the Persian Gulf from government-sponsored radio broadcasts and military transmissions from around the globe.

England's BBC and this country's Voice of America are considered the most au-

thoritative news sources. But these days, shortwave listeners are more interested in the English broadcasts of government operations such as Radio Moscow and Kol Israel, Radio Damascus, Radio Cairo, Radio Baghdad and others in the Middle East.

Hours before the bombing began, "Radio Baghdad was saying the same old propaganda," said Brown, a microsystems manager for American Electronic Laboratories in Lansdale and executive director of the North American Shortwave Association, which has 1,800 members worldwide. At least on the radio, the Iraqis "are all standing beside Saddam. [They're saying that] this is a holy war and that if the Americans attack, they'll be sorry. But they've been saying that for weeks."

Most countries regularly broadcast government-sanctioned news and entertainment on radio frequencies that enable the signals to bounce literally around the planet. By tuning in on a shortwave radio, available for as little as \$125, listeners can hear reports on world events as well as transmissions on military frequencies - although, like Brown, they may not understand what they're hearing.

Some countries - especially those in the Third World, where there is little commercial radio or TV - intend their transmissions for domestic consumption and broadcast in their native tongue. But others, particularly those major players on the world stage, offer their views in many languages. Radio Moscow, for example, broadcasts in 64 languages; the Voice of America in 56.

MINUTES

JANUARY GENERAL MEETING

N3FVI called the meeting to order at 7:40pm at the Franklin Institute. Bill announced that there were 5 more openings for mid-month meetings in case someone wants to volunteer to hold one.

KB3IV reported that the club now has an interest-bearing account. He also said that dues are due. The annual budget is also in effect.

ND3Q is continuing to look for volunteer examiners.

Phone patch codes were in January's *BLURB*.

AK2I presented the program which was on the past, current and future of W3TKQ. He painted an optimistic picture which includes the addition of thousands of dollars of new equipment to be donated by such

companies as Kenwood and Icom. He reported that, on that very day, he had received the Icom VHF/UHF rig which is designed for Ham Satellite work and which costs thousands of dollars.

Jake also announced a program in which particular station consoles can be sponsored by particular individuals, and that would be so stated on the console. Arnie, KC2HX agreed to be the first such sponsor along with his wife, Sue.

Visitors at the meeting included NA2E, Mim Roeshman, Joseph Weiser, N3IBJ, Nancy Winheld, Harold Weinberg, and Pete Pupalaikis.

Respectfully Submitted, Robert R. Moore, N2RM, Secretary

SPECIAL GUEST SPEAKER AT FEBRUARY GENERAL MEETING

Bob Brown, KW3F
Executive Director of the 1800 member
North American Shortwave Association.

**Bob will talk about SWLing and
the Persian Gulf war.**

See related article on page 20.

69th MONTHLY VE SESSION STATISTICS JANUARY

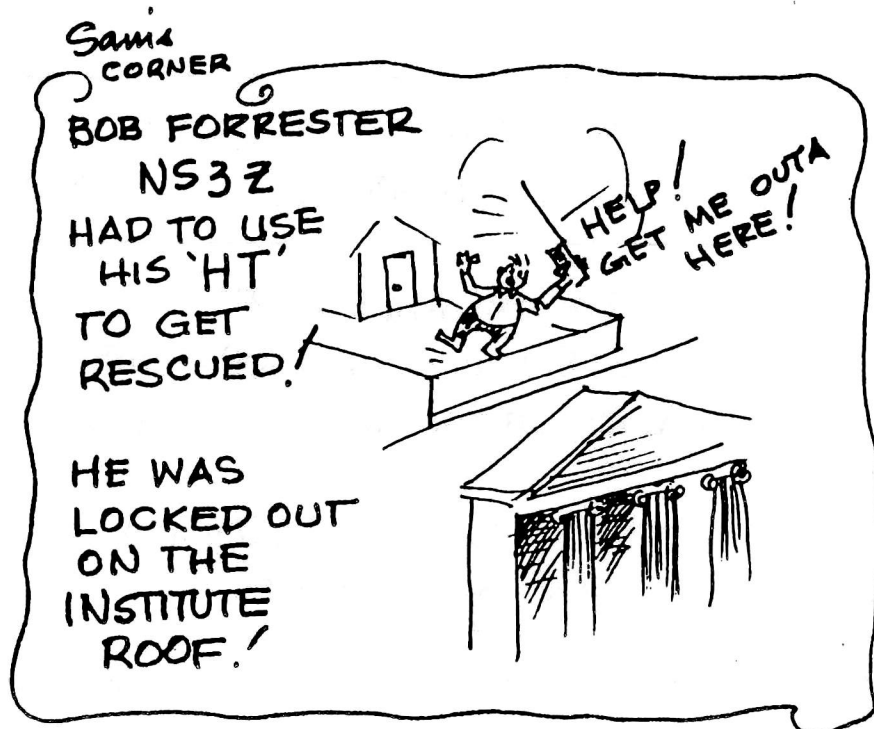
12 candidates pass 8 elements
6 upgrades

Name	Call	From	To
Charles Askew	KA3KGQ	Novice	Technician
John Hutnick			Novice
Douglas Priest	KA3YFI	Novice	Technician
Edmond Rush	N3IBJ	General	Advanced
John Sims	N3HML	Technician	General
Noel Zeibari	N3IKG	Technician	General

Congratulations to all, and to the members of our VE team:

ND3Q Dusty Rhoads, Chairman
N3EKR Lee Pamplin
K3SNZ Vince Braxton
NS3Z Bob Forrester

Contact Person:
W3PWG Rolland Madera



areas of Micronesia, but like the others, they have brought their ways and customs. And one of these "strange customs" that some of the Americans have brought is ham radio.

Pohnpei is some of the best represented "hamming" spots in all of Micronesia. It is also the capital of the country of the Federated States of Micronesia, so it is the place where reciprocal licenses and all communication rules and regulation are processed. But as natural as it is for the rain to fall and for such precipitation to meander downwards, so it is when amateur radio and good propagation are around, for antennas to rise and signals to radiate upwards.

Many of Pohnpei's V63— call signs*, however, are like the migratory shorebirds that just pass through for a time, making lots of noise while there, and then returning to where they came from. Slowly this is chang-

ing, and eventually, a few radio operators from other countries will put down enough roots of their own to establish themselves permanently on this island, plus native Pohnpeian and other islanders will become addicted to amateur radio communication. Then ham radio will seemingly be as indigenous as that perplexing, squawky Pohnpei parrot.

Kaselehla oh isiakan-esil
(greetings/beauty and seventy-three)

* In the previous article of this series, it was reported that call signs for all of the Federated States of Micronesia had been changed to "V76." Please accept sincere apologies for this misinformation. This has been a good lesson to the author NOT to trust everything "heard on the air."

Radio System Bounces Data off Meteor Trails

BROADCOM, a tiny New Jersey company, is commercializing stardust.

The military and some companies have been bouncing radio signals off meteor trails since the 1950s. But the technique, which is inexpensive compared with satellite systems, can send data only at very low speeds.

Now Broadcom, an R&D house in Mahwah, says it can turn the two billion or so meteors that streak into the Earth's atmosphere every day into high-powered transmission networks.

Current meteor-transmission systems use radio waves to bounce signals off the microscopic dust from a meteor trail to another antenna far away. But sometimes it takes several minutes to find a meteor to carry the traffic. And once found, the trail lasts as little as four seconds.

Broadcom has just received a patent on a system that uses a series of antennas, low-power radio transceivers and custom software to scan the sky and focus on a meteor like a camera, capturing its trail to transmit data.

From its earth stations, one in Mahwah and the other in Waterbury, Vt., Broadcom has been able to perform transmissions every 30 seconds, according to President John Chironna. "We expect to get that down to every four seconds, which would give us much faster transmission speeds."

Mr. Chironna says that he's talking to Indonesia about using a Broadcom system for long-distance data transmission, and that Conrail is considering using Broadcom to monitor its thousands of rail cars during transit.

The Wall Street Journal

POHNPEI — PRECIPITATION, PARROTS AND PROPAGATION

Nancy Vander Velde AA6EA
P.O. Box 1603
Majuro, MH 96960

It rains on Pohnpei. In fact, it rains a LOT on Pohnpei, with over 400 inches of rain falling every year on its 2,000 foot mountainous regions, making it the rainiest area of all of Micronesia.

But all of this precipitation naturally does not just sit on the tops of the high hills — it runs down toward the sea. And en route, it creates small streams and larger rivers, some with classically beautiful cascading waterfalls. Thus, many homes scattered about the more urban regions of the 334 square mile island have their own private stream rushing by, shared only by fresh-water shrimp and eels.

The people living in the capital of Kolonia also benefit from the river fed torrents. Recently, a hydroelectric operation was put into effect, although it still needs to be supplemented by more standard diesel generators.

It is not surprising, though, that a tropical island with an abundance of water is a good place for things to grow. The proliferation of rolling hills and towering peaks are carpeted with greenery. The only places not so endowed are the sheer cliffs of volcanic basalt, (such as Pohnpei's famous landmark, Sokehs Rock). It does not seem at all out of place in such surroundings to see and hear wild parrots, (called "Pohnpei Lories") — except when one realizes that these are endemic to Pohnpei. There are no other Micronesian parrots and even ornithologists are not sure where they came from — from Melanesia, Polynesia or somewhere else? — or why.

Pohnpei is also home of a profusion of ethic and language groups now all living in their own micro-communities. Ngatikese, Mokilese, Kosraeans, Mortlockese, Kapingimarangians, all came to the big land mass of Pohnpei at various times and for various reasons, (such as when a severe typhoon had hit their home island).



Another ethnic and language group that is represented are Americans and other English speaking peoples. Their arrival has been more gradual — some came as teachers, some as Peace Corps, some as yachters passing through. For the most part, they are less permanent than the people from other

THE W 3 T K Q REPORT

by
Jake Kovalchek,
AK2I

In just six days after its announcement at the General Meeting held on January 2, 1991 at The Franklin Institute, the rebuilding fund for the operating modules stood at \$1,000.00, [As of presstime, three major donations have been pledged, for a total of \$1,500. —Ed] and more are expected to follow!

As was stated at the General Meeting, each module will be dedicated in the individual's name and call sign, along with a picture, embedded in plastic, of the individual or couple who so decide to dedicate that module in their name. It is estimated that we will have five modules each costing \$500.00 to properly construct in such a fashion so as to form a semicircular operating console with backdrop and sloping panel for all the equipment.

The two dedicated control modules thus far are the Center position, holding the TS950 from Kenwood, and the second will be the Satellite transceiver position holding the ICOM 970 just recently received from the ICOM corporation, thanks to Mr. Jim Newcomb, the National Sales Manager for ICOM. The third position will be the Radio Teletype, CW, Amtor, Ascii position which will operate from the present equipment at the Institute - the Drake TR7.

The fourth position will be the Packet Radio, both HF and VHF, and Mars operating position, along with the printer. Here we will also operate ATV as well. The fifth and last will be the Guest Operating Position with a dedicated antenna system, and dedicated equipment for voice and/or CW operation. All of the latter three positions are still available for dedication by a member or members of Phil-Mont.

We can only speculate that if this kind of donation, with your name, call sign, and picture, interests you, then please, take the time now to send in your donation, or call me immediately at 609 428-5924, so that you and your family are not disappointed, because interest thus far on Phil-Mont's rebuilding proposal, has been phenomenal.

The General meeting also produced a few other surprises. Several people made inquiries as to what kind of Computers we needed for W3TKQ. That same person indicated that I would soon hear from him, hopefully with some good news. Another asked about what else was needed, and then proceeded to indicate that light fixtures and perhaps the drop ceiling are "in the bag". Wow! What a show of concern and interest. I just cannot explain the enthusiasm that filled the room. Truly, a remarkable sensation.

One thing I will promise: That W3TKQ will not only look the part, but will operate as the Premiere Amateur Radio Station in the world!

Cable-TV Firm Wants to Test Phone Service

By DENNIS KNEALE
Staff Reporter of THE WALL STREET JOURNAL

NEW YORK—Comcast Corp. filed a request with the Federal Communications Commission to conduct a five-city experiment in so-called personal communications networks, joining a growing number of cable companies trying to move into the turf of phone companies.

Comcast, a major operator of local cable-television systems that also owns cellular-phone networks, said the planned two-year test is intended to determine whether its cable systems can carry telephone calls and be linked with cellular phone systems.

Comcast joins Time Warner Inc., Cablevision Systems Corp. and several other cable providers in their interest in moving in on local telephone service. Last month, Time Warner's cable group filed a similar FCC request for a four-city test of personal communications networks, or PCN.

Proponents say such networks, carrying phone calls along cable systems' coaxial cable and optical fiber lines, could ultimately lead to home phones that are cordless, mobile and far lighter and smaller than existing technology allows.

But the cable companies' move into telephone territory seems likely to draw opposition from phone companies, which have been consistent rivals and critics of the cable industry. The two industries already have clashed over efforts by regional phone companies to enter the cable business by carrying television signals over the phone systems' extensive fiber-optic lines.

Cable firms have fiercely opposed the phone companies' efforts to enter their terrain, arguing that the local phone systems

shouldn't be allowed to compete with cable by subsidizing the effort with revenue from a regulated monopoly. Now, the phone companies could use the same argument: cable companies—an unregulated local monopoly in most markets—shouldn't be able to subsidize a move into telecommunications with revenue they receive from largely unregulated rates.

But Brian L. Roberts, Comcast's president and chief operating officer, rejected the parallel and insisted that cable's role in PCN would be merely a "complementary" effort that wouldn't necessarily compete with local phone service.

"It's an additive product, it's expansionary," he said. While phone service is a "necessity," cable television is more an accessory, he added. In addition, when American Telephone & Telegraph Co. was broken up in the early 1980s, splitting up into seven major regional phone companies, "they agreed not to go into other businesses." Cable hasn't made any such pledge, he noted.

Telecommunications industry officials couldn't be reached for immediate comment on Comcast's FCC filing. Mr. Roberts, however, maintains that he doesn't expect phone companies to oppose the request to conduct the experiment and said they are working on similar projects.

If approved by the FCC, the experiment would occur in five areas that have different characteristics in terms of terrain, population density and other factors. They include Baltimore, Philadelphia and Trenton, N.J., where Comcast operates both a local cable

GROUP ASKS REVIEW OF AM POWER RULE

FYI

A federal law concerning FCC responsibility in time of war or national emergency has been changed. As of Dec. 11, 1990, Amateur Radio stations no longer will automatically be shut down in such cases. Now, in either event, all FCC licensees will be obliged to observe whatever orders and instructions the FCC issues in the interests of national security and spectrum use.

The ARRL Letter

That's not my job

This is a story about four people: Everybody, Somebody, Anybody and Nobody.

There was an important job to be done and Everybody was sure that Somebody would do it. Anybody could have done it but Nobody did it. Somebody got angry about that because it was Everybody's job. Everybody thought Anybody could do it but Nobody realized that Everybody wouldn't do it. It ended up that Everybody blamed Somebody when Nobody did what Anybody could have done.

Author unknown

Editor's note: Thanks to the multiple contributors of this article.

On Nov. 23, 1990 the society for the Preservation of Amplitude Modulation (SPAM) filed a petition for reconsideration, of the FCC's power limits for AM stations. The Commission denied, on Oct. 13, petitions by the League, by SPAM, and by others, to return to a dc power input limit of 1,000 watts on AM. Since June 2, 1990, the power limit has been 375 watts carrier power output (at 100 percent modulation).

The SPAM petition contends that the FCC has a "hidden agenda concerning ... A3E emission," in that it now restricts experimenters on AM to "a power level four times less than other emission types."

SPAM further contends that power output measurement standards for other modes may not be directly applicable to AM, especially where interference to others is concerned, and that emissions containing a carrier signal should be subject to different standards than carrier-less emissions.

SPAM points out the "adverse economic impact" on amateurs who own "\$1,420,000 worth of AM transmitters," noting that most AM gear is American-made and parts to modify equipment to the new, lower power level, may be difficult to obtain.

The ARRL Letter

**AMATEUR LICENSE EXAMS HELD ON THE FIRST
NON-HOLIDAY THURSDAY OF EVERY MONTH**

Registration begins at 6:00 PM

Doors close at 6:30 PM sharp

THE FRANKLIN INSTITUTE

For Information Call ND3Q at
(215) 482-0386 or 879-0505

Accessible by the handicapped.



TECHNIQUES FOR REDUCTION OF TELEPHONE INTERFERENCE

Technological advances in telephone instruments seem to have brought forth a resurgence of telephone RFI. This situation is aggravated by the increasing number of manufacturers producing inexpensive versions of these devices. Fortunately, some generic solutions can be applied to tame the problems mass production at low cost brought about.

This article recounts some basic methods of reducing telephone RFI, examines the differences found in modern instruments and finally applies some good ham know-how to what has become a sore point in our hobby.

The Network Interface

One change that has occurred in home telephone service is customer installation and maintenance of internal wiring and instruments.

Since telephone wiring can act as a pickup antenna, this should be the first place we start our cure. Typically, telephone service is provided to a subscriber through a device called a network interface. At this point the internal house wiring is tied to the phone by a modular phone jack. Simply adding a .01 mfd disc bypass capacitor across the RED and GREEN wires, called the TIP and RING wires in telephone parlance, may be all that is required to reduce or eliminate RFI.

Further RFI reduction can usually be obtained by the addition of RF chokes of approximately 10 microhenries, in series with the TIP and RING. The capacitors are wired from each leg of the phone line to ground. Running a short length of wire to a cold water pipe or other nearby ground point will assure a high degree of attenuation to RFI.

Instrument Receptacles

Since our purpose is to reduce pickup of RF on the phone lines, our next step is filtering the line at the point where it connects to the telephone device itself. Most

telephones are connected to a small flesh colored block with a receptacle for the modular telephone cord. This is called the "42 Block."

"42 blocks" have four screw tie points on the mounting plate that can be used for component mounting. The tie points can be accessed by removing the modular jack cover plate. Connecting the filter at the affected phone will usually suffice for that phone, but I prefer installing them on all the phone jacks, thereby isolating all the phones from RF pickup.

Filtering Telephone Instruments

Up to this point we have avoided modifying the phone itself. Unfortunately, the problem may be so severe that we must perform telephone surgery. This involves adding filtering at three places.

First: The hybrid transformer.

This audio transformer should be bypassed across its primary and secondary windings with 470 pf to .001 mf capacitors.

If the location of this component eludes you, try adding the bypass capacitor across the wires coming from the modular jack. These are usually red and green, but may be found by bridging the input wires with a pair of low impedance headphones and listening for dial tone.

The next bypass installation is the microphone element wires both at the mike element and at the point where the handset wire enters the phone. Once again, use 470 pf to .001 mf disc capacitors. Likewise, bypass the handset receiver element and wires at the base of the phone.

Summing It All Up

Elimination of telephone RFI primarily consists of preventing RF from getting into the unit, as well as keeping it off the wiring. We can no longer rely on the local telephone company to solve RF interference problems for us. We can, however, rise to the situation proving that hams still have some technical knowledge.

KC2ZO and The ARRL UPDATE

system and a cellular phone system; West Palm Beach; Indianapolis; and Los Angeles.

While other cable companies have focused on linking their cable lines with local or long-distance phone companies, Comcast is more interested in links between cable and cellular technologies. It will test such link-ups in Trenton, in particular.

Current cellular phone service is hampered by sometimes poor reception, cutoffs, and limited reach, in part because the "cells" or calling areas are up to five square miles in size. Comcast proposes smaller "micro-cells" covering only 500 homes.

That approach would let a cable company place far more calling areas for phone

traffic, then route calls from a cordless cellular phone to a micro-cell, then onto coaxial cable or fiber-optic lines used usually for TV signals, traveling onward to a bigger cell site in a cellular phone system.

The greater number of "micro-cells" would give calls better reception and let phones use smaller, less-powerful transmitters, thereby allowing for smaller, lighter phones that use little power, Comcast officials maintain.

Much of this technology, however, has yet to be proven. "You really have to take conceptional ideas and turn them into the practical, and this is the only way to find out," said Mark Coblitz, Comcast's vice president for strategic planning.

To the Editor:

- With reference to the graphics shown on page 7 of the September 1990 Blurb, several sharp-eyed CW members of Phil-Mont noted errors in the punctuation given for International Morse Code.

The graphics were taken from The Encyclopaedia Britannica, a reliable source; however, the source was probably printed prior to 1938 [printing of 1958 -Ed].

In general, amateur and commercial radio operations conform with international agreements established by the International Telecommunications Union (ITU) to which the United States in a signatory power. At the 1937 ITU conference held in Madrid, certain changes in the International Morse Code were agreed upon by member countries.

Briefly, the differences or changes in punctuation made after 1937-38 are reflected in the ARRL Handbooks for 1939 and 1940 (Copyright 1938 and 1939, respectively).

1939	ARRL Handbook	1940
.....	Period	
-----	Exclamation (!)	none at present
-----	Comma	-----
none	Error	

- Refer to handbook and operating publications for information concerning code use and CW operating procedures.

W3VVS

Morse Code

by Dr. Thomas W. King

In this age of "no-code" license discussion, here's an argument in favor of code as a language. Dr. King, WF9I, presented his views at a recent conference on technology for the disabled.

Morse Code, also known as International Radiotelegraph Code, among other names, was originated in 1835 by Samuel F. B. Morse, American artist and experimenter. It is a system of binary-encoded pulses which allow transmission and conveyance of intelligence. In engineering and communication fields, Morse Code is commonly referred to as "CW," meaning "Continuous Wave."

The applications of Morse Code/CW input by disabled persons for environmental control and augmentative/alternative communication are expanding. CW input can be configured via any binary system of circuit opposites such as long/short, high/low, or left/right. Most commercially-available Voice Output Communication Aids (VOCAs) accept CW input from single, or multiple-position switches. Dedicated microprocessor systems (computers) can also be configured via readily available software, and switching peripherals, to accept CW input as a keyboard alternative, convert the CW to ASCII, and translate the resulting ASCII into text and/or speech output.

In fact, CW is the original ancestor of ASCII and other data-exchange codes used by microprocessors. The number of signal elements sent per second in these codes is referred to as "bauds." The inverse of the transmission speed in bauds is the duration of a data bit in an asynchronous character such as found in CW, ASCII and other interchange codes. When a human is using

CW to interact with a machine, what is created could be called a "cyborg"—a human and machine combination working together. The speed of this interaction can be expressed mathematically at $T_b = 1/B$, wherein T_b equals the duration of a data bit in seconds, and B represents speed in bauds. For CW interaction with a microprocessor, or with another human for that matter, bauds = CW WPM (words per minute) X 0.83. This allows for empirical comparison of data exchange speeds, with applications in rehabilitation.

Functional use of CW in rehabilitation applications is generally taught and acquired by means of a visual chart reference method. Over 100 years of research and experience, however, in CW use for landline and radio telegraphy suggest that visual learning of the code will limit the eventual encoding and decoding speed of the learner. Vastly enhanced encoding and decoding rates are obtained through primary reliance on auditory methods for mastering code. Because rate enhancement is always a major objective with augmentative/alternative communication systems, it is essential that potential Morse Code users learn the code in a way—auditorily—that will ultimately give them the fastest possible encoding (and decoding) speeds.

Research and experience have confirmed that a person learning code visually will commonly reach a top encoding speed of about 12 words (60 characters) per minute, and a top decoding speed of about 10 words (50 characters) per minute, and even approach the 40-80 wpm range for many learners.

Evidence from the fields of psycholinguistics, foreign language instruction, early

January 8, 1991

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FOR IMMEDIATE RELEASE

BILL TO PROTECT AMATEUR RADIO SPECTRUM INTRODUCED IN HOUSE

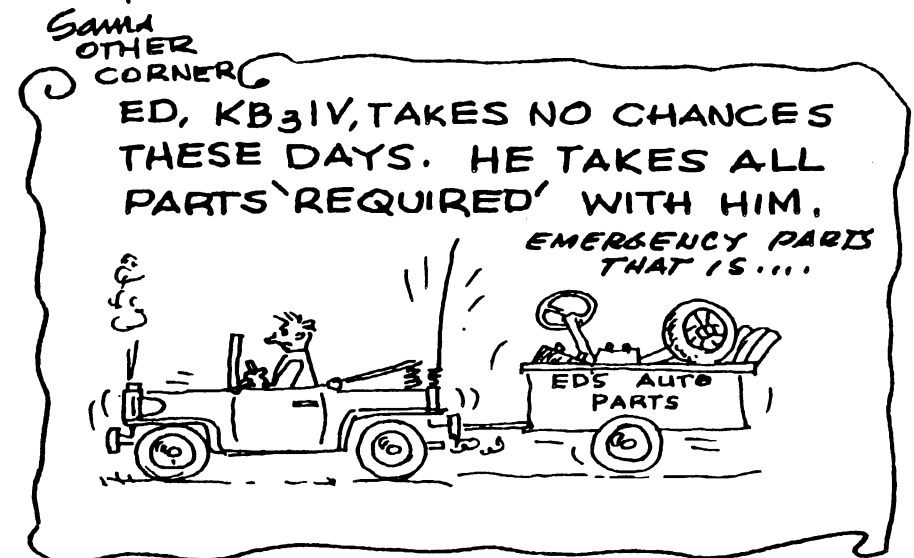
On the first day of the new 102nd Congress, a bill to prevent the loss of radio spectrum by the Amateur Radio Service was introduced by Rep. Jim Cooper (D-Tennessee). Cooper is a member of the House Subcommittee on Telecommunications and Finance, where the bill is likely to be referred for consideration. The bill, The Amateur Radio Spectrum Protection Act of 1991, is designated as H.R. 73.

The legislation proposes that "the Federal Communications Commission shall not diminish existing allocations of spectrum to the Amateur Radio Service after January 1, 1991. The Federal Communications Commission shall provide equivalent replacement spectrum to the Amateur Radio Service for any frequency reallocation after January 1, 1991."

In commenting on H.R. 73, the President of the American Radio Relay League, Larry Price, W4RA, welcomed Rep. Cooper's support of the Amateur Radio Service and expressed the hope that many Congressmen will join him as co-sponsors. "We know that Amateur Radio has many friends on Capitol Hill. Our success in defeating unreasonable license fees in 1989 proved that," said Mr. Price.

In the findings portion of his bill, Rep. Cooper states that nearly one-half million radio amateurs are licensed by the FCC, after thorough examination in radio regulations and technical principles of radio communications; that amateurs operate their stations solely with a personal aim and without pecuniary interest; that among the basic purposes of the Amateur Radio Service is to provide voluntary non-commercial radio services, particularly emergency communications; and that emergency communication services by volunteer radio amateurs "have consistently and reliably been provided before, during, and after floods, tornadoes, forest fires, earthquakes, blizzards, train wrecks, chemical spills, and other disasters." However, he also notes that the FCC "has taken actions which resulted in the loss of over 100 MHz of spectrum to Amateurs."

The ARRL BBS





6. Close your eyes and say each character immediately after it is sent in your practice programs.

7. When you can say each character, including numbers, punctuation, and procedural signs, by memory immediately after it is sent each time, you are ready to write or type each character as it is sent.

8. Practice for two or three 15-30 minute sessions per day. Do not practice when you are tired. You will habituate errors.

9. Work through your self-teaching programs gradually, until you can "copy" code at 5 to 7 words per minute with 100% accuracy. When you have reached this point, you are at a beginning functional level of code use. Now you are ready to start sending code or entering it into your computer/VOCA.

10. Continue practicing with your teaching software, or cassette programs, to help build your speed. At this point, now that you have accurately internalized the code at a slow speed, the more you practice receiving and sending, the faster you will get at both!

There you have it: a "cookbook" of ten steps that will help you and your students to achieve the fastest and best possible skills in Morse Code use. Most learners find that it takes about 10-20 hours of instruction and practice to get to the functional level mentioned in Step 9. The key words are practice, practice, practice—daily! Good luck. The rest is up to you.

HANDI-HAM World via W3RM

Motorola Working on Pocket Phone For Calls Anywhere in the World

Motorola Inc. is now working on a pocket phone that would be able to make and receive calls from anywhere in the world. The phone will weigh about 25 ounces and cost about \$3,500. Motorola hopes to introduce the phone within six years.

Today's cellular phones depend on local radio antennas to relay their signals. To make a phone call with global range, Motorola must launch 77 satellites to supplement antennas on the ground. Motorola expects that calls will cost \$1 to \$3 a minute.

Motorola expects a wide market for the phone. Potential users would include business people and vacationers who need to place calls while aboard planes and ships, or while traveling in areas where there is no phone service. **The phone could also be used by disaster-relief teams when communications have been disrupted.**

Science fiction writers have been dreaming of small, portable telephones with global range for decades. Engineers have been working on the idea for many years as well. However, no other company has announced specific plans for developing such a system.

Motorola Posts 17% Drop in Profit for Fourth Quarter

Brad got engaged.



language acquisition, and speech-language pathology suggests that humans learn languages best and fastest when they can be initially immersed in hearing the new language. It seems we must first learn to understand a language before we can use it with facility expressively. Think of how a baby acquires speech. For the first 12 to 18 months, he/she mostly listens to speech going on around him/her. Then, at around age 2 years, expressive speech and language begin to emerge and rapidly expand in complexity.

The same appears to be true in learning your next new language—Morse Code. Learning to comprehend the code first at a moderate rate of speed, 5-7 wpm, with a high level of accuracy, will most likely enhance your ability to send it later on. In brief: listen first and learn to understand the code—then practice sending. The reverse approach will limit your eventual encoding and decoding rates, and cause you to reach a less than maximal skill plateau as a Morse code user.

Overcoming the enticing trap of relying on visual dot-dash configuration charts of characters is the next challenge. As stated above, focusing your learning efforts on hearing the sound, rhythm, and "feel" of CW characters will greatly enhance the rate at which you will eventually be able to send and receive information in Morse Code. The code will then become an internalized part of you—a language. When you can "think" in Morse Code, having internalized it auditorily, you won't have to look up each character on a chart as you send and receive it. Plus, you will tend to think in terms of character groups and word units as related sound entities. This will also markedly enhance your eventual message transmission and reception rates.

Two other pedagogical issues diverge at this point regarding the learning of Morse code: mastery of it for yourself as the parent,

clinician, or teacher, versus your teaching the mastery of it to your child, client or student. Both follow the same essential approaches, however, we will assume that, as a starting point in the clinical venture, you must first use the methods and tools described below to learn the code yourself. Then you will be able to replicate the same procedures and adapt them as necessary to teach code mastery to your student.

Specifically, here are some concrete suggestions to assist you in learning, and mastering, Morse Code via an auditory-based approach:

1. Determine that you will only LISTEN to appropriate code practices software and tapes. (Specific media are listed below.)
2. NEVER look at, think of, or write down code characters as visualized dots and dashes! This will only limit your eventual achievement.
3. Think of, and talk about, code characters as consisting of "dits" and "dahs" (short and long pulses, respectively).
4. Configure your software, or choose cassette tape programs, so that the Character Rate (how fast the individual character elements are sent) is between 15-21 words per minute. This may seem fast to you now as a beginner, but again, research and experience show that, at this character speed, you quickly learn to hear and feel the rhythm of the character, and not just count the dits and dahs. You automatically internalize each character as a unit by "feel," just as you would sounds and words in a new foreign language that you are hearing over and over.
5. For initial learning, set the Character (or Word) Speed at 3 wpm. Slower is too boring; faster will be too fast right now. ➔

1991

FEBRUARY

1991

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2 <i>Groundhog Day</i>
3 2M NCS N3FVI 10M NCS ANYONE 75M NCS W3PWG	4	5 CODE PRACTICE NET at 8 PM	6 GENERAL MEETING at The Franklin Institute Refreshments at 7:00 PM Meeting starts at 7:30	7 LICENSE EXAMS at The Franklin Institute Registration begins at 6:00 Doors close at 6:30 PM <i>sharp!</i>	8	9
10 2M NCS K3QLY 10M NCS ANYONE 75M NCS W3AOA	11 <i>Thomas Edison 1847</i>	12 CODE PRACTICE NET at 8 PM <i>Abraham Lincoln 1809</i>	13 DIRECTORS' MEETING at KA3AMO & N3FTC's <i>Ash Wednesday</i>	14 <i>St. Valentine's Day</i>	15	16
17 2M NCS KA3AMO 10M NCS ANYONE 75M NCS W3RCE	18 <i>President's Day</i>	19 CODE PRACTICE NET at 8 PM	20	21 <i>Blurb Folding</i>	22 <i>George Washington 1732</i>	23 <i>G. F. Handel 1635</i>
24 2M NCS KB3iV 10M NCS ANYONE 75M NCS AK2i	25	26 CODE PRACTICE NET at 8 PM	27	28		<i>If you walk on snow, you cannot hide your footprints.</i>